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PTO/SB/01A (10-00).

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### DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

**Title of Invention**APPARATUS AND METHOD EMPLOYING BI-DIRECTIONAL  
CONVERTER FOR CHARGING AND/OR SUPPLYING POWER

As the below named inventor(s), I/we declare that:

This declaration is directed to:

- ☐ The attached application, or  
☒ Application No. 10/622,845, filed on July 18, 2003,  
☐ as amended on \_\_\_\_\_ (if applicable);

I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;

I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;

I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the National or PCT International filing date of the continuation-in-part application.

All statements made herein of my/our own knowledge are true, all statements made herein on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.

**FULL NAME OF INVENTOR(S)**Inventor one: Bing ChengCitizen of: USSignature: X *Bing Cheng*Date: X 10/23/03Inventor two: Fengtai HuangCitizen of: CanadaSignature: X *Fengtai Huang*Date: Oct 23, 2003

Inventor three: \_\_\_\_\_

Citizen of: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Inventor four: \_\_\_\_\_

Citizen of: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

☐ Additional inventors are being named on \_\_\_\_\_ additional form(s) attached hereto.

Burden Hour Statement: This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is used by the public to file (and the PTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This form is estimated to take 1 minute to complete. This time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Docket No. 130209.492

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**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Bing Cheng et al.Application No./Patent No.: 10/622,845 Filed/Issue Date: July 18, 2003Entitled: APPARATUS AND METHOD EMPLOYING BI-DIRECTIONAL CONVERTER  
FOR CHARGING AND/OR SUPPLYING POWERBallard Power Systems Corporation

(Name of Assignee)

a

corporation(Type of Assignee, e.g., corporation, partnership,  
university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of an undivided part interest

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above.  
The assignment was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the  
current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the United States Patent and Trademark Office at  
Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached☐ Additional documents in the chain of title are listed on a supplemental sheet.☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be  
submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records  
of the USPTO. See MPEP 302.8]

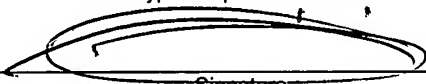
The undersigned (whose titles are supplied below) are authorized to act on behalf of the assignee.

October 28, 2003

Date

Noordin S.K. Nanji

Typed or printed name

  
SignatureCorporate Secretary

Title

X 10/24/03

Date

Fred Flett

Typed or printed name

X   
SignatureVice-President, Product Development

Title

## ASSIGNMENT

WHEREAS, we, Bing Cheng and Fengtai Huang (hereinafter referred to as ASSIGNORS), having mailing addresses of 5073 Forestdale Drive, West Bloomfield, Michigan 48322, and 526 Rodfam Drive, Windsor, Ontario, Canada N9G 2W1, respectively, are the joint inventors of an invention entitled "APPARATUS AND METHOD EMPLOYING BI-DIRECTIONAL CONVERTER FOR CHARGING AND/OR SUPPLYING POWER," as described and claimed in the specification for which an application for United States letters patent was filed on July 18, 2003, and assigned Application No. 10/622,845; which application claims the benefit of U.S. Provisional Application No. 60/397,469, filed July 19, 2002;

WHEREAS, Ballard Power Systems Corporation (hereinafter referred to as ASSIGNEE), a corporation of the State of Delaware having a place of business at 15001 Commerce Drive North, Dearborn, Michigan 48120, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United

States and foreign letters patent on said invention, for litigation regarding letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

X 10/23/03  
Date

X Bing Cheng  
Bing Cheng

State of Michigan)

County of Wayne)

ss.

I certify that I know or have satisfactory evidence that Bing Cheng is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated October 23, 2003

Signature of  
Notary Public 

Printed Name Elbert N. Taylor

My appointment expires July 09, 2004

ELBERT N. TAYLOR  
NOTARY PUBLIC WAYNE CO., MI  
MY COMMISSION EXPIRES Jul 9, 2004

X Oct 23, 2003  
Date

X   
Fengtai Huang

State of X Michigan )

County of X Wayne )

ss.

I certify that I know or have satisfactory evidence that Fengtai Huang is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated October 23, 2003

Signature of  
Notary Public 

Printed Name Elbert N. Taylor

My appointment expires July 09, 2004

Please type a plus sign (+) inside this box → +

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**ELECTION AND POWER OF  
ATTORNEY OR  
AUTHORIZATION OF AGENT**

<b>Application Number</b>	10/622,845
<b>Filing Date</b>	July 18, 2003
<b>First Named Inventor</b>	Bing Cheng
<b>Group Art Unit</b>	
<b>Examiner Name</b>	
<b>Attorney Docket Number</b>	130209.492

I hereby appoint:

☒ Practitioners at Seed IP Law Group PLLC

OR

☐ Practitioner(s) named below:

**\*00500\***  
**00500**

PATENT TRADEMARK OFFICE

Name	Registration Number

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

OR

☐ Firm or  
Individual Name

Address

Address

City

State

ZIP

Country

Telephone

Fax

I am the:

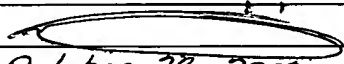
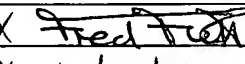
☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.

*Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).*

☒ As assignee of record of the entire interest we hereby elect, under 37 C.F.R. § 3.71, to prosecute the application to the exclusion of the inventor.

**SIGNATURE of Applicant or Assignee of Record**

Name	Noordin S.K. Nanji – Corporate Secretary
Signature	
Date	October 28, 2003
Name	Fred Flett – Vice-President, Product Development
Signature	X 
Date	X 10/29/03

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒ \*Total of 1 forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any Comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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